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ABSTRACTS

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STRATIFORM MIOCENE MANGANESE DEPOSIT OF GABAL ABU SHAAR EL QEBLI, RED SEA, EGYPT

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The lithofacies association of the Miocene succession of G. Abu Shaar El Qebli, Red Sea; their lateral thickness changes and internal unconformities, indicate deposition under general reefal and restricted lagoonal environments interrupted by synrift uplifting and subaerial karstification. The manganese deposit of this area is a stratified horizon, up to 70 cm thick, encountered within the lagoonal carbonate facies of the host Miocene succession.

The ore horizon consists mainly of Mn and Fe rich pisoliths within a calcareous matrix, showing varieties of megascopic and microscopic syn-depositional and syn-diagenetic features, e.g. graded bedding, ripples, small scale cross lamination, flute marks; scour and fill structure, slumping, drying out features and microunconformities. The Mn and Fe rich pisoliths of this ore horizon display well defined vertical zonal arrangement which indicates variations in the depositional conditions. Pisoliths of Mn hydroxides are suggested to be deposited during a stagnant phase of the shallow lagoon. The fabric evolution of the Mn pisoliths, their mineralogical composition as well as cementation and recrystallization imply diagenetic modifications under shallow lagoonal conditions.